



Tips to Cope with Stress and Improve Cardiovascular Health

Contributing authors on behalf of Team Best Practices:

Kate Gawlik, DNP, RN, APRN-CNP, The Ohio State University

Eileen Seeholzer, MD, MS, Case Western Reserve University

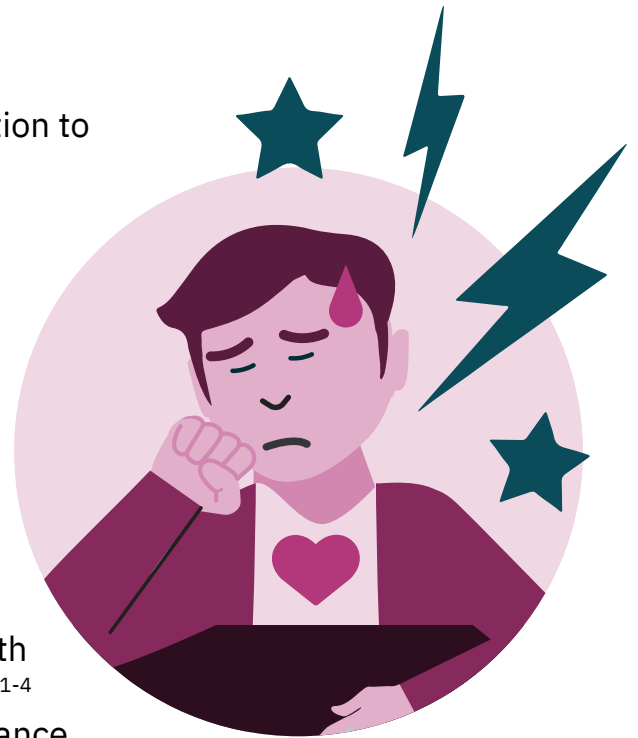
What is Stress?

Stress is a normal part of life and is the body's reaction to change. It can be experienced physically, mentally, emotionally, or through a combination of these.

Although stress often is perceived to be negative, stress can be positive in a person's life. Starting a new job, having a child, or getting married can all cause stress, but the stress is generally positive, short-lived, and within the person's ability to cope.

Stress can turn harmful when a person faces constant challenges and is not able to get relief or relaxation between stressors, which may overwhelm their ability to cope effectively. If stress is not managed in a healthy way, it may lead to health problems or make existing health conditions worse.¹⁻⁴

Some unhealthy coping mechanisms include: avoidance, using drugs or alcohol, overeating, overspending, gambling, yelling, arguing, or using the internet excessively.



Why Does it Matter For Me?

There is a link between stress and heart disease. Both long-term and short-term stress can play a role in the development, onset, and rate of heart disease.¹⁻⁴

What Are Some Healthy Ways to Cope With Stress?⁵⁻¹⁶

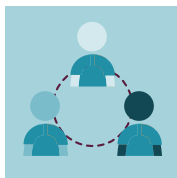
Avoid Drugs and Alcohol

While these substances can produce short-term effects that initially appear to be helpful, they have addictive properties and ultimately may lead to additional stress and other health problems.



Connect With Others

A strong, positive social network can provide support when times are hard. Spend quality time with the ones you love. If you do not have many trusted people in your life, try joining a volunteer group, fitness center, or other community group to meet new people and create a support network for yourself.



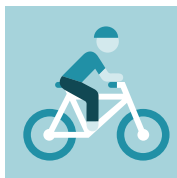
Deep Breathing

Breathing in slowly through your nose then out your mouth can reduce heart rate and blood pressure, and can help provide you with a sense of calm.



Exercise

Exercise can produce endorphins, which are chemicals in the body that help improve your mood. Exercise improves sleep and reduces symptoms of stress, anxiety, and depression. Even a ten minute walk can positively impact your mood and reduce stress.



Meditation

Meditation is a practice that is used to calm and clear the mind. There are different types of meditation, many of which have shown a benefit to lowering blood pressure.



Practice Gratitude

Try to list 3-5 things for which you are grateful each day, either in writing or in your mind. Even better, try to tell someone each day why/how you are grateful for them.



Resolve Existing Stressful Situations

This may not always be possible, but setting boundaries, for example by saying no to people or activities that use a lot of your time and energy, stress often can be decreased. You can also consider talking with a therapist, who can help you to better handle stressful situations.



Sleep

Try to get a minimum of seven hours of sleep each night and avoid caffeine six hours prior to bedtime.



Yoga or Tai Chi

Both of these physical practices use slow body movements and deep breathing, which help the body's stress response systems. This can lower your heart rate, reduce blood pressure, and improve breathing.



What works to decrease stress in one person may not work for another. You may have to try several things before finding one that helps decrease your stress.

How Do I Know if This Is Normal Stress or if It Is Something Else?

If your stress is affecting your ability to function or complete your normal activities, make an appointment with a primary care provider who can make recommendations to help you address the stressors in your life.



Links

- **American Heart Association Stress Management Tools**
This website provides a variety of articles focused on stress reduction.
heart.org/en/healthy-living/healthy-lifestyle/stress-management
- **National Institutes of Health Newsletters on Healthy Coping**
These newsletters provide comprehensive information on healthy coping mechanisms.
newsinhealth.nih.gov/2014/12/feeling-stressed
newsinhealth.nih.gov/2016/12/tai-chi-your-health
newsinhealth.nih.gov/2019/03/practicing-gratitude
newsinhealth.nih.gov/2019/11/yoga-health
newsinhealth.nih.gov/2012/01/mindfulness-matters
- **National Center for Complementary and Integrative Health**
This site provides multiple resources and information on meditation.
nccih.nih.gov/health/meditation

Additional Resources

- **American Diabetes Association Risk Test**
This test assesses risk level for developing diabetes.
diabetes.org/diabetes/risk-test
- **National Heart, Lung, and Blood Institute Body Mass Index Calculator**
This tool calculates body mass index (BMI).
nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm
- **Your Game Plan to Prevent Type 2 Diabetes**
This resource provides a step-by-step plan to help prevent diabetes.
niddk.nih.gov/health-information/diabetes/overview/preventing-type-2-diabetes/game-plan
- **The Diabetes Prevention Toolkit**
This toolkit offers dozens of resources, ideas, and tools for families, schools, healthcare providers, employers, and public health policymakers to help improve the diabetes epidemic.
hsph.harvard.edu/nutritionsource/disease-prevention/diabetes-prevention/diabetes-prevention-toolkit/
- **On Your Way to Preventing Type 2 Diabetes**
This resource helps people with pre-diabetes make small, healthy lifestyle changes.
cdc.gov/diabetes/prevent-type-2/guide-prevent-type2-diabetes.html

References

1. Giannoglou G, Koskinas C. Mental stress and cardiovascular disease: growing evidence into the complex interrelation between mind and heart. *Angiology*. 2015;66(1): 5-7. doi:10.1177/0003319714525032.
2. Hammadah M, Alkholder A, Mheid I, et al. Hemodynamic, catecholamine, vasomotor and vascular responses: determinants of myocardial ischemia during mental stress. *Int J Cardiol*. 2017;243:47-53. doi:10.1016/j.ijcard.2017.05.093.
3. Hare DL, Toukhsati SR, Johansson P, Jaarsma T. Depression and cardiovascular disease: a clinical review. *Eur Heart J*. 2014;35(21):1365-1372. doi:10.1093/eurheartj/eh462.
4. Silverman AL, Herzog AA, Silverman DI. Hearts and minds: stress, anxiety, and depression: unsung risk factors for cardiovascular disease. *Cardiol Rev*. 2019;27(4):202-207. doi:10.1097/CRD.000000000000228.
5. Asmundson GJG, Fetzner MG, Deboer LB, et al. Let's get physical: a contemporary review of the anxiolytic effects of exercise for anxiety and its disorders. *Depress Anxiety*. 2013;30(4):362-73. doi:10.1002/da.22043.
6. Chekroud SR, Gueorguieva R, Zheutlin AB, et al. Association between physical exercise and mental health in 1.2 million individuals in the USA between 2011 and 2015: a cross-sectional study. *Lancet Psychiatry*. 2018;5(9): 739-746. doi:10.1016/S2215-0366(18)30227-X.
7. Goyal M, Singh S, Sibinga EMS, et al. Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Intern Med*. 2014;174(3):357-368. doi:10.1001/jamainternmed.2013.13018.
8. Hartley L, Dyakova M, Holmes J, et al. Yoga for the primary prevention of cardiovascular disease. *Cochrane Database Syst Rev*. 2014; (5):CD010072. doi:10.1002/14651858.CD010072.pub2.
9. Kirkwood G, Rampes H, Tuffrey V, et al. Yoga for anxiety: a systematic review of the research evidence. *Br J Sports Med*. 2005;39(12):884-891. doi:10.1136/bjism.2005.018069.
10. Koszycki D, Bengner M, Shlik J, Bradwejn J. Randomized trial of a meditation-based stress reduction program and cognitive therapy in generalized social anxiety disorder. *Behav Res Ther*. 2007;45(10):2518-2526. doi:10.1016/j.brat.2007.04.011.
11. Pascoe MC, Bauer IE. A systematic review of randomized control trials on the effects of yoga on stress measures and mood. *J Psychiatr Res*. 2015;68:270-282. doi:10.1016/j.jpsychires.2015.07.013.
12. Richards SH, Anderson L, Jenkinson CE, et al. Psychological interventions for coronary heart disease. *Cochrane Database Syst Rev*. 2017;4(4):CD002902. doi:10.1002/14651858.CD002902.pub4.
13. Saeed SA, Antonacci DJ, Bloch RM. Exercise, yoga, and meditation for depressive and anxiety disorders. *Am Fam Physician*. 2010;81(8):981-986. PMID: 20387774.
14. Smyth A, O'Donnell M, Lamelas P, et al. Physical activity and anger or emotional upset as triggers of acute myocardial infarction: the INTERHEART study. *Circulation*. 2016;134(15):1059-1067. doi:10.1161/circulationaha.116.023142.
15. Wang F, Lee EKO, Wu T, et al. The effects of tai chi on depression, anxiety, and psychological well-being: a systematic review and meta-analysis. *Int J Behav Med*. 2014;21(4):605-617. doi:10.1007/s12529-013-9351-9.
16. Yin J, Dishman RK. The effect of tai chi and qigong practice on depression and anxiety symptoms: a systematic review and meta-regression analysis of randomized controlled trials. *Ment Health Phys Act*. 2014;7(3):135-146. <https://doi.org/10.1016/j.mhpa.2014.08.001>.

Partners



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